

***THE WORLD MARKET STUDY  
OF  
SCADA, ENERGY MANAGEMENT SYSTEMS  
AND  
DISTRIBUTION MANAGEMENT SYSTEMS  
IN  
ELECTRIC UTILITIES: 2008-2010***

**SAMPLE**

***VOLUME III***

**WORLD ASSESSMENT AND FORECAST**

**May 2008**

**NEWTON-EVANS RESEARCH COMPANY, INC.**

**INTRODUCTION**

**THE WORLD MARKET STUDY  
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**2008-2010**

**VOLUME III**

**WORLD MARKET ASSESSMENT AND FORECAST**

The nine sections comprising Volume III of the EMS, SCADA and DMS world research program series are:

**A Introduction to the Report**

1. World Market Assessment and Forecast  
And World Regional Markets for EMS, SCADA and DMS
2. International Summary
3. North America
4. Western Europe
5. Central and Eastern Europe and CIS
6. Latin America (Central and South America)
7. Mid-East, Mediterranean, and Africa
8. Asia Pacific and South Asia
9. Global and Regional Statistics on Transmission and Distribution Substations

## Section 1

### **World Market Assessment and Forecast**

- Volume Three of the EMS, SCADA and DMS world research program series of reports has been prepared to enable suppliers to gauge the relative size and shape of the current and near-term market for EMS, SCADA and DMS systems, applications and related services during the 2008-2010 period.
- As of May 20, 2008 a total of 146 North American surveys, and more than 70 international surveys from 52 countries had been received and tabulated for use in preparing the final editions of Volumes One and Two of this 2008-2010 series.
  - *These surveys, together with supplier viewpoints, and Newton-Evans' own estimates and projections, serve as the basis for the World Market Assessment and Forecast.*
- The North American utilities represented in this study provides electricity service to approximately 40% of the North American electricity market. Some of the largest and most progressive electric power utilities in the United States and Canada are represented in this year's study. Included are: AEP, Southern Company, Constellation Energy's BGE, Hydro Quebec, Hydro One, PacifiCorp, Exelon, PGE, Progress Energy and many others.
- Newton-Evans estimates that about 24% of the world's served electric consumer market is served by utilities participating in the international portion of the study. Such large international utilities as SIBELGA (Belgium), TransGrid (Australia), Tata (India), ESKOM (South Africa), ESB National Grid (Ireland), EDP (Portugal), Iberdrola (Spain), CFE (Mexico), CLP Power and Hong Kong Electric (Hong Kong), Korea Electric Power Corp (Korea), Russia's Federal Grid Company and UPS, The Scottish Power Company, PREPA from Puerto Rico, Manila Electric Power (Philippines), Thailand's PEA, and Taipower Taiwan are well represented.

## Global Markets for EMS, SCADA and DMS

- The remaining sections of Volume Three are allocated into summaries based on the major world regions. This section provides summary information for the world market. This section is a summary of all of the regional data that follows.
- The 2008 survey data support the viewpoint that spending for mature or traditional control center technologies such as EMS and SCADA systems is holding “steady” and in fact is still showing positive growth, dependent upon the world region being discussed. Real growth for this related group of computer-based control and monitoring systems derives from increased spending on distribution *systems* and intelligent electronic devices and transmission *equipment*.
  - This new study corroborates similar findings reported in the comparable 2001, 2003 and 2005 studies. One major change is that the values of “turnkey” systems procurements are down somewhat around the world, as more and more utilities opt for system replacements and upgrades without rework of the entire supporting infrastructure (control center construction, telecoms, et al).
- If we extend the definition of distribution management systems to encompass distribution substation integration and automation programs and feeder automation initiatives now taking hold in several countries, then a stronger, more growth-oriented picture of related investments by utilities emerges.
  - *With the combined effects of new substation construction, strong load growth in developing nations, and the impact of deregulation on improving customer services via improved system reliability, there is substantial support for a sustainable [SAMPLE] percent or higher annual growth rate in combined worldwide spending for control-center based control and monitoring systems and related software and services.*
- On a global basis, Newton-Evans estimates that about \$[SAMPLE] million (range of \$[SAMPLE] million to \$[SAMPLE] million) will be spent during the current year forecast period for EMS systems, software licenses for EMS applications, field and control center hardware to support EMS systems, and related engineering, training, and maintenance and support services.

- Over the three-year forecast period (2008-2010), low estimates of about **[SAMPLE]** dollars will likely be spent for EMS systems and related software and services. If all projected procurements are made during this same three-year period, then contracts worth about **[SAMPLE]** dollars are likely to be awarded. Some countries are planning large re-investments in EMS during this period, but over the years, it has been Newton-Evans' experience that project funding is often delayed by **[SAMPLE]** from original plans.
  
- Worldwide spending for SCADA and DMS systems, software licenses, control center hardware and related engineering, training, and maintenance and support services may reach **[\$[SAMPLE]]** million in 2008, possibly ranging as high as **[\$[SAMPLE]]** million by 2010.
  - *About **[SAMPLE]**% of this amount will be spent on DMS-related activities (applications licenses, engineering support, training services, etc.).*
  
  - *This amount does not include any spending for DA equipment or substation-based intelligent electronic devices (IEDs). Protective relays alone represent a **[\$[SAMPLE]]** global business area. Detailed information can be found in the Newton-Evans series **“World Market for Protective Relays in Electric Utilities; 2006-2008”** (to be fielded again in September 2008).*
  
  - *Descriptive SUBSTATION EQUIPMENT spending breakouts for electronic and automation components and subsystems can be found in the Newton-Evans series now underway **“World Market for Substation Automation and Integration Programs in Electric Utilities: 2008-2010.”***
  
- Over the three-year forecast period, Newton-Evans projects worldwide spending will reach **[\$[SAMPLE]]** for SCADA and DMS systems and related software and services. The expected range of SCADA and DMS-related spending is from **[\$[SAMPLE]]** to **[\$[SAMPLE]]** for the 2008-2010 periods.

- Power exchanges and ISO/RTO organizations across the world have recently (2000 onward) geared up their operational systems to accommodate national, international and regional mandates and regulatory directives.
  - *Newton-Evans believes the value of control and monitoring systems and market management systems purchased by the world's power exchanges, ISOs and RTOs over the 2008-2010 periods will be in the range of \$[SAMPLE] million to more than \$[SAMPLE] million.*

Global forecast ranges are found in Table 1, Figure 1-1, Figure 1-2, Figure 1-3, and Figure 1-4.

## Section 7 [SAMPLE]

### **Mid-East, Mediterranean and African Regional Summary for EMS, SCADA and DMS**

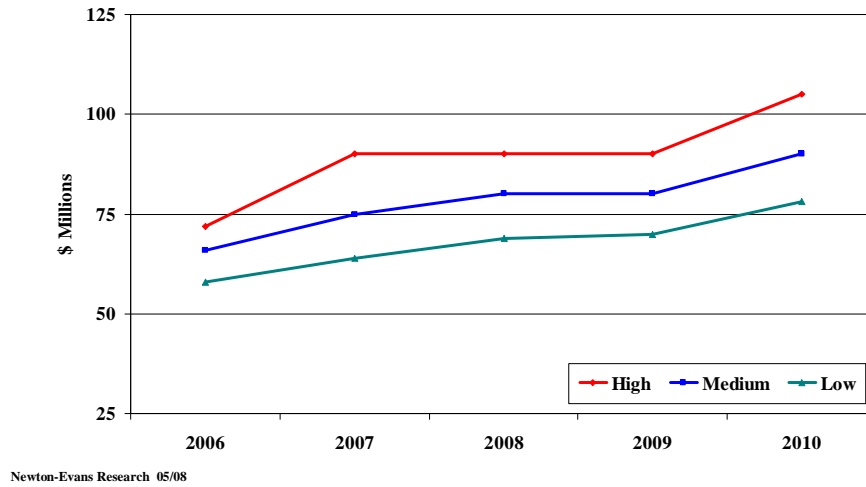
- Table 7-1 provides a forecast of EMS, SCADA, DMS, and PX/ISO/RTO spending by Mid-East, Mediterranean and African electric utilities for the 2008-2010 period. During this three-year period, at least \$217 million and as much as \$285 million will be spent for EMS-related systems, equipment and services. The same table suggests that at least \$147 million and as much as \$239 million will be spent over the same five years for SCADA and DMS systems, equipment, software and services among the region's electric utilities. Spending for PX/ISO/RTO systems is forecasted to range from \$63 million to \$127 million.
- Figure 7-1 indicates likely spending ranges for EMS activities and systems over the 2008-2010 periods, for Mid-East, Mediterranean and African utilities.
- Figure 7-2 indicates likely spending ranges for SCADA activities and systems over the 2008-2010 periods, for the region.
- Figure 7-3 indicates likely spending ranges for DMS activities and systems over the 2008-2010 periods, for the region.
- Figure 7-4 indicates likely spending ranges for PX/ISO/RTO activities over the 2008-2010 periods for the region.
- Table 7-2 and Table 7-3 provide forecasts for spending based in part on three sources: (1) the actual survey data, (2) vendor supplied outlook information and (3) Newton-Evans ongoing research into NGO sources of project funding for T&D control systems.

**Table 7-1**  
**Forecast Range – Value of Awards for EMS/SCADA/DMS**  
**and Energy Trading Systems and Software**  
**Mid-East/Mediterranean/Africa**

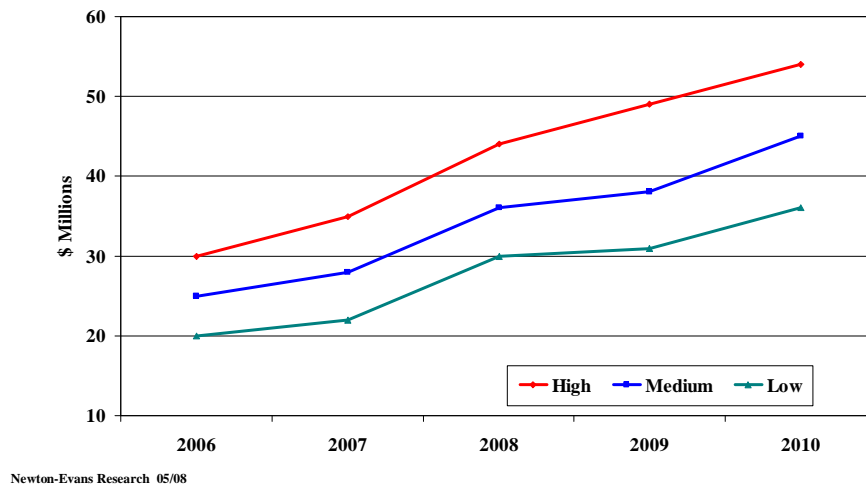
		YEAR				
		2006	2007	2008	2009	2010
		Estimated Amount in \$Million				
<b>High</b> <b>Estimates</b>	<b>EMS</b>	<b>\$ 72</b>	<b>\$ 90</b>	<b>\$ 90</b>	<b>\$ 90</b>	<b>\$ 105</b>
	<b>SCADA</b>	<b>30</b>	<b>35</b>	<b>44</b>	<b>49</b>	<b>54</b>
	<b>DMS</b>	<b>19</b>	<b>22</b>	<b>26</b>	<b>30</b>	<b>36</b>
	<b>PX/ISO/RTO</b>	<b>18</b>	<b>25</b>	<b>30</b>	<b>42</b>	<b>55</b>
<b>Medium</b> <b>Estimates</b>	<b>EMS</b>	<b>66</b>	<b>75</b>	<b>80</b>	<b>80</b>	<b>90</b>
	<b>SCADA</b>	<b>25</b>	<b>28</b>	<b>36</b>	<b>38</b>	<b>45</b>
	<b>DMS</b>	<b>15</b>	<b>18</b>	<b>19</b>	<b>24</b>	<b>30</b>
	<b>PX/ISO/RTO</b>	<b>14</b>	<b>17</b>	<b>22</b>	<b>32</b>	<b>40</b>
<b>Low</b> <b>Estimates</b>	<b>EMS</b>	<b>58</b>	<b>64</b>	<b>69</b>	<b>70</b>	<b>78</b>
	<b>SCADA</b>	<b>20</b>	<b>22</b>	<b>30</b>	<b>31</b>	<b>36</b>
	<b>DMS</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>17</b>	<b>20</b>
	<b>PX/ISO/RTO</b>	<b>9</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>27</b>



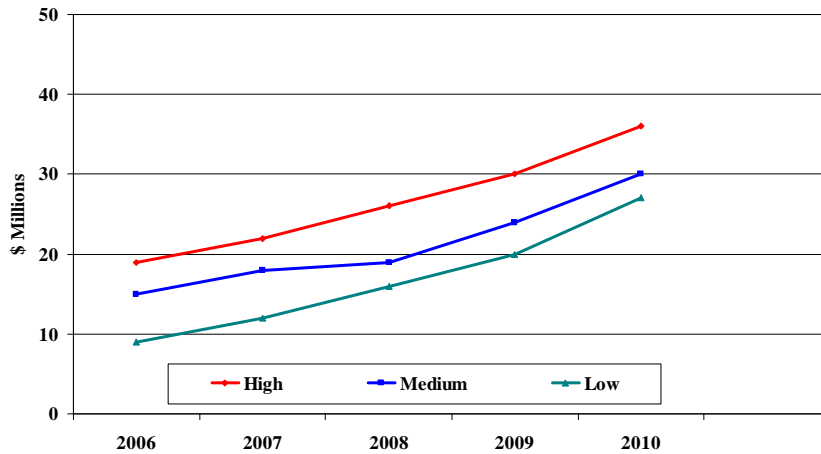
**Figure 7-1**  
**Forecast Range – Value of EMS Awards**  
**Mid-East/Mediterranean/Africa (2006-2010)**



**Figure 7-2**  
**Forecast Range – Value of SCADA Awards**  
**Mid-East/Mediterranean/Africa**

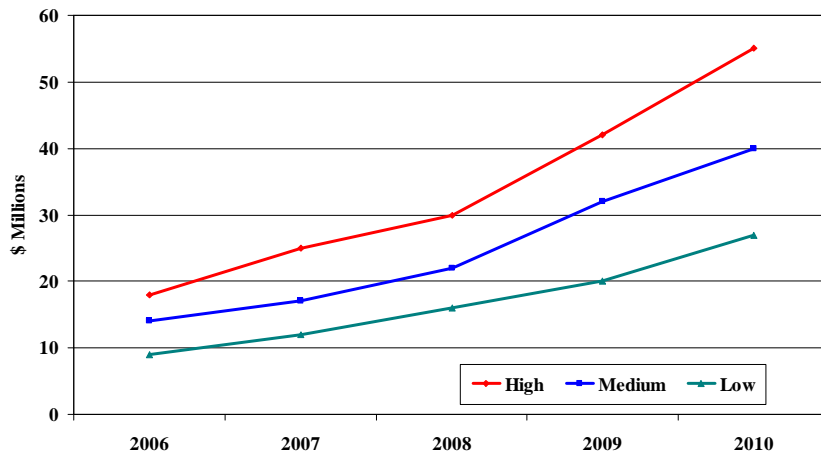


**Figure 7-3**  
**Forecast Range – Value of DMS Awards**  
**Mid-East/Mediterranean/Africa**



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**Figure 7-4**  
**Forecast Range – Value of PX/ISO/RTO Awards**  
**Mid-East/Mediterranean/Africa**



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**Table 7-2**  
**Mediterranean and Middle East Region**  
**2008-2010**

<b>Country</b>	<b>EMS/SCADA/DMS Procurement Activity Known to be Underway during 2008-2010</b>	<b>Total Forecasted EMS/SCADA/DMS Procurement Activity during 2008-2010</b>
Algeria	\$10-15 Million	\$15-25 Million
Bahrain	\$1-3 Million	\$4-7 Million
Cyprus	\$1-3 Million	\$2-4 Million
Egypt	\$5-9 Million	\$18-30 Million
Iran	\$5-9 Million	\$12-20 Million
Iraq	\$10-20 Million	\$20-35 Million
Israel	\$3-5 Million	\$5-8 Million
Jordan	\$2-5 Million	\$3-6 Million
Kuwait	\$4-7 Million	\$8-15 Million
Lebanon	\$2-4 Million	\$6-10 Million
Libya	\$3-5 Million	\$10-15 Million
Morocco	\$4-8 Million	\$8-12 Million
Qatar	\$9-12 Million	\$15-20 Million
Saudi Arabia	\$8-12 Million	\$15-25 Million
Syria	\$3-6 Million	\$5-10 Million
Tunisia	\$3-5 Million	\$5-8 Million
Turkey	\$5-10 Million	\$10-15 Million
U A E	\$5-8 Million	\$8-15 Million
Yemen	\$3-5 Million	\$10-15 Million
Other Northern Africa/Near East	\$3-\$5 Million	\$6-8 Million
	<b>\$104-178 Million</b>	<b>\$173-291 Million</b>

**Table 7-3**  
**African Countries (Sub-Saharan Africa)**  
**2008-2010**

<b>Country</b>	<b>EMS/SCADA/DMS Procurement Activity Known to be Underway during 2008-2010</b>	<b>Total Forecasted EMS/SCADA/DMS Procurement Activity during 2008-2010</b>
Angola	<\$1 Million	\$1-2 Million
Burkina Faso	<\$1 Million	\$1-2 Million
Burundi	<\$1 Million	\$1-2 Million
Cameroon	\$2-4 Million	\$3-6 Million
Chad	<\$1 Million	\$1-2 Million
Congo (Kinshasa)	<\$1 Million	\$2-3 Million
Ethiopia	\$1-3 Million	\$3-5 Million
Ghana	\$1-3 Million	\$1-4 Million
Guinea	<\$1 Million	\$1-2 Million
Ivory Coast	<\$1 Million	\$2-4 Million
Kenya	\$2-4 Million	\$3-5 Million
Madagascar	<\$1 Million	\$1-2 Million
Malawi	<\$1 Million	\$1-2 Million
Mali	<\$1 Million	\$1-2 Million
Mozambique	<\$1 Million	\$1-2 Million
Niger	<\$1 Million	\$1-2 Million
Nigeria	\$5-10 Million	\$10-15 Million
Rwanda	<\$1 Million	\$1-2 Million
Senegal	\$3-5 Million	\$5-8 Million
Sierra Leone	<\$1 Million	\$1-2 Million
Somalia	<\$1 Million	\$1-2 Million
South Africa	\$5-9 Million	\$10-15 Million
Sudan	\$3-5 Million	\$6-9 Million
Tanzania	<\$1 Million	\$1-2 Million
Uganda	\$2-4 Million	\$5-10 Million
Zambia	\$1-3 Million	\$5-10 Million
Zimbabwe	\$1-3 Million	\$2-4 Million
Other Africa (Power Pools)	\$6-10 Million	\$8-12 Million
	<b>\$35-70 Million</b>	<b>\$87-147 Million</b>